

REMARKS/ARGUMENTS

In the Final Office Action dated August 14, 2007, claims 8 – 10 and 14 were allowed and claims 1, 2, 4 – 7, and 15 – 20 were rejected. Applicant hereby requests reconsideration of the application in view of the below-provided remarks. No claims have been amended, added, or canceled.

Allowable Subject Matter

Applicant notes with appreciation that claims 8 – 10 and 14 are allowed.

Claim Rejections

Claims 1, 2, 4 – 7, and 15 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Bly et al. (U.S. Pat. Publ. No. 2004/0042399 A1, hereinafter Bly).

Claim 1

Claim 1 particularly points out that traffic type bandwidth limitations are received from a customer and that it is the traffic type bandwidth limitations which were received from the customer that are translated to queue-specific bandwidth limitations.

Specifically, claim 1 recites:

“A method for forwarding packet-based traffic through a network node, comprising:

receiving traffic type bandwidth limitations from a customer;
dedicating a group of queues in a network node to the customer;
translating the traffic type bandwidth limitations, which were received from the customer, to queue-specific bandwidth limitations;
performing queue-specific rate shaping on the customer’s traffic according to the queue-specific bandwidth limitations respectively associated with the queues; and
performing group-specific rate shaping on the customer’s traffic according to a group-specific bandwidth limitation associated with the group of queues.”
(emphasis added)

In the Final Office action, the “receiving” limitation was rejected in view of Bly paragraph [0025], line 1. Applicant asserts that Bly does not disclose “*receiving traffic*

type bandwidth limitations from a customer” as recited in claim 1. At paragraph [0025], lines 1 – 3, Bly discloses “[T]he queues 44 – 47 can have shaping profiles, which include properties such as: priority, depth, latency, jitter, and rate.” Although Bly discloses that a queue can have a shaping profile such as rate, nowhere does Bly disclose that the shaping profile is received from the customer in the form of a traffic type bandwidth limitation. That is, while Bly discloses that a queue has a shaping profile, Bly does not disclose where the shaping profile comes from. Receiving traffic type bandwidth limitations from a customer and then translating the traffic type bandwidth limitations to queue-specific bandwidth limitations as recited in amended claim 1 allows the customer to control bandwidth usage without having to understand the concept of queuing within a service provider edge device. Because Bly does not disclose *“receiving traffic type bandwidth limitations from a customer”* as recited in claim 1, Applicants assert that claim 1 is not anticipated by Bly.

In the “Response to Arguments” section, the Final Office action states:

“On page 1 of the remarks, regarding claim 1, applicant argues that Bly does not disclose receiving traffic type bandwidth limitations from a customer. In reply, the examiner respectfully disagrees. The grouping of traffic is done by classifying traffic with similar need; for example, ‘all pay-per-view’ video traffic or ‘all traffic for customer X’ (see paragraph 24). In order to classify pay-per-view video traffic, traffic type bandwidth limitation has to be sent from a customer; otherwise, provider would not have known that the customer is requesting for pay-per-view video traffic.” (emphasis added)

Firstly, paragraph [0024] of Bly discloses in full:

“The shaping engine 34 (see FIG. 4) en-queues incoming traffic 36 onto a selected one of the queues 44-47 based, for example, upon look-up information, which classifies the traffic. Streaming audio or video would be classified differently than e-mail, because streaming audio or video requires sufficient bandwidth to play without interruption. Therefore like-traffic, such as a stream or set of streams is placed in the same burst group 12, 14, or 16, in one embodiment. Within each burst group, further sub-classification can take place to determine on which one of the queues 44-47 the traffic 36 should be en-queued. “Like traffic” can be defined as desired for a particular application. It could be, for example, “all video traffic”, or it could be “all pay-per-view” video traffic, or it could be “all traffic for customer X”, or it could be “all email traffic.” It is a grouping of traffic with similar needs. Video, for example requires a fast rate, with low latency and jitter influences. Email on the other hand, can be handled on a “best efforts” basis; i.e. low-priority, without regard to latency and jitter.” (emphasis added)

As highlighted above, Bly discloses that like traffic can be defined as desired for a particular application. Bly then gives the example that like traffic could be identified as “‘all pay-per-view’ video traffic, or it could be ‘all traffic for customer X’, or it could be ‘all email traffic’.” Although Bly discloses different types of like traffic, Bly does not disclose who defines the like traffic. Specifically, Bly does not disclose that the customer defines like traffic types. It is more likely that the operator of the network (or the operator of the shaping engine in the case of Bly) is the entity that defines which traffic types are “like traffic” for traffic shaping/queuing purposes. Although Bly discloses that “like traffic” can be identified, Bly does not disclose that a customer is identifying which traffic types are “like traffic.”

Bly also discloses that the different types of traffic have different shaping profiles, i.e., fast rate, low latency, low jitter, best effort, low-priority. Although Bly discloses that the different traffic types have different shaping profiles, Bly does not disclose that the customer provides the specific shaping profiles to the network node. Applicant asserts that it is more likely the case that the customer provides the traffic to the network node, the network node identifies the traffic type, and then applies its own shaping profiles to the queues 44 – 47, see paragraph [0025] of Bly.

Secondly, the Final action states that “in order to classify pay-per-view video traffic, traffic type bandwidth limitation has to be sent from a customer; otherwise, provider would not have known that the customer is requesting for pay-per-view video traffic.” Applicants respectfully disagree with this statement. It is quite possible for a customer to request that pay-per-video be supported by a network node without the customer providing a traffic type bandwidth limitation to the network node. For example, the customer can simply require that the network node support pay-per-view video, without specifying any particular bandwidth limitation. As is known in the field, a network node can be configured to recognize packet-based traffic as video traffic and handle the traffic to meet a certain pre-specified shaping profile. While the network node can recognize traffic as video traffic and can handle the traffic to meet a certain pre-specified shaping profile, the network node does not have to receive any type of bandwidth limitation information from the customer as suggested in the Final Office action. Additionally, because the above-identified statement in the Office action is

unsupported by any facts, Applicants respectfully request that the statement either be factually supported or withdrawn.

In view of the above-provided remarks, Applicants assert that claim 1 is not anticipated by Bly.

Claims 2 and 4 – 7 are dependent on claim 1. Applicant asserts that these claims are allowable at least based on an allowable claim 1.

Independent Claim 15

Independent claim 15 includes similar limitations to claim 1. Because of the similarities between claim 1 and claim 15, Applicant asserts that the remarks provided above with reference to claim 1 apply also to claim 15. Applicant asserts that Bly does not disclose the above-identified limitations of amended claim 15.

Claims 16 – 20 are dependent on claim 15. Applicant asserts that these claims are allowable at least based on an allowable claim 15.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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